VOLU-SOL

| SECTION 1: PRODU | CT AND COMPANY IDENTIFICATION | | INHALATION: If b respiration. Consu | |
|--|--|--|--|---------------|
| PRODUCT NAME: | Acid Ethanol 90% | | INGESTION: Do N | |
| SYNONYMS: | Acid Ethanol solution, Acid Ethanol | 190 | person. Rinse mou | |
| CATALOG CODES: | VXA | | SKIN: Wash off with soap and | |
| MANUFACTURER: | Volu-Sol | | EYE: Rinse thorou | ghly with nl |
| ADDRESS: | 5095 West 2100 South Salt Lake City, UT 84120 | | | Billy with bi |
| | Salt Lake City, 01 64120 | | | SECT |
| EMERGENCY PHONE: | (800) 535-5053 | | | |
| OTHER CALLS: FAX: | (801) 974-9474 (801) 974-9553 | | FLAMMABLE LIMI | IS IN AIR: |
| | | | | |
| CHEMICAL FAMILY: CHEMICAL FORMULA: | - | | FLASH POINT: | |
| PREPARED BY: | Volu-Sol | | | |
| | | | AUTOIGNITION TE | MPERATU |
| RECOMMENDED USE: Laboratory c | nemical | | EXTINGUISHING N | /IEDIA: Use |
| RESTRICTIONS ON USE: Use as | recommended | | dioxide | 199 |
| | | | FIRE FIGHTING PR | |
| SECTION 2: | HAZARD(S) IDENTIFICATION | | NIOSH-approved s | |
| | | 1 | pressure demand | |
| EMERGENCY OVERVIEW: GHS Classification: | Flammable Liquids (Ca | ategory 2) | FIRE AND EXPLOS | |
| GHS LABEL ELEMENTS: | | 100 BOI Y 27 | FIRE AND EXPLOS | |
| | | 1 | | SECTION |
| Pictogram: Signal Word: | Danger | | 1998 - Alexandre - Ale | |
| Hazard Statement(s): | Danger | | ACCIDENTAL RELE | |
| H225 | Highly flammable liquid and vapou | r | vapours, mist or Evacuate personn | |
| Precautionary Statement(s): | Kana and from boots to be | flammer (hash | concentrations. Va | |
| P210 | Keep away from heat/sparks/op surfaces. No smoking | pen flames/hot | if safe to do so. De | |
| P233 | Keep container tightly closed | | an electrically pro | |
| P240 | Ground/bond container and receiv | | disposal according and releases to so | |
| P241 | Use explosion-proof electrical lighting/ equipment | l/ ventilating/ | contact the US Coa | |
| P242 | Use only non-sparking tools | | | |
| P243 | Take precautionary measures | against static | | SECT |
| 2200 | discharge | | HANDLING AND S | TORAGE |
| P280 | Wear protective gloves/ eye protection | rotection/ face | or mist. Use exp | |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take | off immediately | smoking. Take me | |
| | | inse skin with | tightly closed in a | |
| P370+P378 | water/shower In case of fire: Use dry sand, c | dry chemical or | carefully resealed | and kept up |
| 15/01/5/0 | alcohol-resistant foam for extinction | | | |
| P403+P235 | Store in a well-ventilated place. Ke | | INCOMPATIBILITE | S: |
| P501 | Dispose of contents/container to waste disposal plant | o an approved | | |
| OTHER HAZARDS: - | | 1. Sec. 1. Sec | SECT | TION 8: EXI |
| HMIS Classification: | | | | |
| Health hazard: | 2 | 2 States and a state of the sta | EXPOSURE LIMITS | |
| Chronic health hazard: | - | | Commonweak | |
| Flammability: | 3 0 | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | Component | CAS-N |
| Physical hazards: NFPA Rating: | U | | Ethanol | 64-17- |
| Health hazard: | 2 | | L | |
| Fire: Boactivity Hazardy | 3 | | VENTILATION SYS | TEM: Local |
| Reactivity Hazard: | 0 | | below limits. Loc | al exhaust |
| SECTION 3: COMPOSI | ION/INFORMATION ON INGREDIEN | ITS | source, preventing document, Industr | |
| | 040 10 | | | |
| INGREDIENT | CAS NO. EC-NO. | | PERSONAL RESPIR | |
| | Index-NC | | feasible, a half-fa exposure limit, o | |
| | | | | |

64-17-5

200-578-6

603-002-00-5

SECTION 4: FIRST AID MEASURES

INHALATION: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

SKIN: Wash off with soap and plenty of water. Consult a physician

EYE: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

TION 5: FIRE-FIGHTING MEASURES Percentage by Volume Upper: -% Lower: -% RE: e water spray, alcohol-resistant foam, dry chemical or carbon S: In the event of a fire, wear full protective clothing and ned breathing apparatus with full face piece operated in the ositive pressure mode **RDS:** Use water spray to cool unopened containers N 6: ACCIDENTAL RELEASE MEASURES SURES: Use personal protective equipment. Avoid breathing re adequate ventilation. Remove all sources of ignition. areas. Beware of vapours accumulating to form explosive accumulate in low areas. Prevent further leakage or spillage roduct enter drains. Contain spillage, and then collect with cuum cleaner or by wet-brushing and place in container for egulations. US Regulations (CERCLA) require reporting spills and air in excess of reportable quantities. The number to National Response Center is (800) 424-8802 TION 7: HANDLING AND STORAGE Avoid contact with skin and eyes. Avoid inhalation of vapour oof equipment. Keep away from sources of ignition - No prevent the buildup of electrostatic charge. Keep container vell-ventilated place. Containers which are opened must be pright to prevent leakage Alkali metals, ammonia, oxidizing agents, peroxides POSURE CONTROLS/PERSONAL PROTECTION Reported in a time-weighted average (TWA) OSHA ACGIH ١o. Reference ppm mg/m³ ppm mg/m³ 1,000 1,900 1,000 1,900 7-5 TLV TLV PEL PEL al and/or general exhaust is recommended to keep exposure ventilation is preferred for control of the emissions at its on into the general work area. Please refer to the ACGIH tion: A Manual of Recommended Practices, for details exposure limit is exceeded and engineering controls are not

feasible, a half-face organic vapour respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier; whichever is lowest. A full-face piece organic vapour respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier; whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face, positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres

Ethanol (70-90%)

SKIN PROTECTION: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

EYE PROTECTION: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

BODY PROTECTION: Impervious clothing. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

| SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES | | |
|---|---------------------------------|--|
| APPEARANCE: | liquid | |
| ODOR: | - | |
| WATER SOLUBILITY: | completely soluble | |
| pH: | - | |
| BOILING POINT: | - | |
| MELTING POINT: | - | |
| VAPOR PRESSURE: | - | |
| SPECIFIC GRAVITY: | - | |
| MOLECULAR WEIGHT: | - | |
| DENSITY: | - | |
| VISCOSITY: | - | |
| REFRACTIVE INDEX: | - | |
| | | |
| SECTIO | IN 10: STABILITY AND REACTIVITY | |

| CHEMICAL STABILITY: | Stable under recommended condit |
|---------------------|---------------------------------|

: Stable under recommended conditions of use and storage

CONDITIONS TO AVOID: Heat, flames, ignition sources

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

| TOXICOLOGICAL INFORMATION: | |
|----------------------------|--|
| Acute Toxicity: | No data available |
| Skin/Eye Irritation: | No data available |
| Carcinogenicity: | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen |
| ROUTES OF ENTRY: | Inhalation/Ingestion/Skin |

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

Toxicity: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

PBT/vPvB Results: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state, and local requirements. Dispose of as unused product

SECTION 14: TRANSPORT INFORMATION

| US DOT | ΙΑΤΑ | IMDG/IMO |
|-------------------|-------------------|------------------|
| Shipping Name: | Shipping Name: | Shipping Name: |
| Ethanol solutions | Ethanol solutions | ETHANOL SOLUTION |
| Hazard Class: | Hazard Class: | Hazard Class: |
| 3 | 3 | 3 |
| UN Number: | UN Number: | UN Number: |
| 1170 | 1170 | 1170 |
| Packing Group: | Packing Group: | Packing Group: |
| II | II | II |

SECTION 15: REGULATORY INFORMATION

| SARA 302 | - |
|-------------------------|--|
| SARA 313 | - |
| SARA 311/312 Hazards | Fire hazard, Chronic Health Hazard |
| State | Right to know lists: MA: 64-17-5 PA: 64-17-5, 7732-18-5 NJ: 64-17-5, 7732-18-5 California Prop. 65 Components: |

SECTION 16: OTHER INFORMATION

Disclaimer: The information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.

